

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,745	11/29/2001	Sanjiv G. Tewani	DP-306477 7500/124 3702	
75	90 09/19/2005		EXAM	INER
DELPHI TECHNOLOGIES, INC.			TORRES, MELANIE	
Legal Staff Mai	l Code: 482-204-450			
1450 W. Long Lake			ART UNIT	PAPER NUMBER
P.O. BOX 5052			3683	
Trov. MI 4809	98			

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
Office Action Commence	09/997,745	TEWANI ET AL.				
Office Action Summary	Examiner	Art Unit				
TL- MAU INO DATE - EN-	Melanie Torres	3683				
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orresponaence address				
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 27 Ju	<u>ıne 2005</u> .					
· <u> </u>	<i>,</i> —					
	,—					
closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 45	03 O.G. 213.				
Disposition of Claims						
4) Claim(s) <u>1-20</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-20</u> is/are rejected. 7)□ Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or	r election requirement.					
	·					
Application Papers						
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) acce		- - - -				
Applicant may not request that any objection to the						
Replacement drawing sheet(s) including the correcti		•				
11)☐ The oath or declaration is objected to by the Ex	aminer. Note the attached Office	Action or form PTO-152.				
Priority under 35 U.S.C. § 119						
12) ☐ Acknowledgment is made of a claim for foreign a) ☐ All b) ☐ Some * c) ☐ None of:	priority under 35 U.S.C. § 119(a)	-(d) or (f).				
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
Copies of the certified copies of the prior	•	ed in this National Stage				
application from the International Bureau	• • • • • • • • • • • • • • • • • • • •					
* See the attached detailed Office action for a list of	of the certified copies not receive	d.				
Attachment(s)	A\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	(PTO 413)				
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Summary Paper No(s)/Mail Da	nte				
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	5) Notice of Informal P 6) Other:	atent Application (PTO-152)				

Application/Control Number: 09/997,745

Art Unit: 3683

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 2. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kojima.

Re claim 1, Kojima discloses a powertrain mount (10) comprising an orifice plate (30) defining an orifice track (44A) having a first cross-sectional area and a slug (48) having a bore (60) with a second cross-sectional area less than the first cross-sectional area. (Figure 5)

Re claim 2, Kojima discloses at least one stop (50) disposed in the orifice track.

Re claim 3, Kojima discloses wherein the at least one stop (50) limits travel of the slug in the orifice track (44A).

Re claim 4, Kojima discloses wherein the bore (44A) has a constant crosssectional area.

Re claim 5, Kojima discloses a powertrain mount (10) comprising a base plate (16a), a molded member (22) connected to the base plate, an orifice plate (30)

Art Unit: 3683

connected to one of the base plate or the molded member, the orifice plate defining an orifice track (44A) having a first cross-sectional area and a slug (48) slidably disposed in the orifice track, the slug having a bore (60) with a second cross-sectional area less than the first cross-sectional area.

Re claim 6, Kojima discloses at least one stop (50) disposed in the orifice track (44A).

Re claim 7, Kojima discloses wherein the at least one stop (50) limits travel of the slug (48) in the orifice track (44A).

Re claim 8, Kojima discloses wherein the bore (60) has a constant crosssectional area.

Re claim 9, Kojima discloses a mount (10) for a powertrain component of a motor vehicle, the mount comprising a base plate (16A), a molded member (22) connected to the base plate, an orifice plate (30) connected to one of the base plate or the molded member, the orifice plate defining an orifice track (44A) having a first cross-sectional area and a slug (48) slidably disposed in the orifice track, the slug having a bore (60) with a second cross-sectional area less than the first cross-sectional area.

Re claim 10, Kojima discloses at least one stop (50) disposed in the orifice track.

Application/Control Number: 09/997,745

Art Unit: 3683

Re claim 11, Kojima discloses wherein the at least one stop (50) limits travel of the slug in the orifice track.

Re claim 12, Kojima discloses wherein the bore (60) has a constant crosssectional area.

Re claim 13, Kojima discloses wherein the powertrain component is an engine. (Column 1, lines 11-13)

Re claims 15, 17 and 19, Kojima teaches wherein the slug is a floating slug to the same extent as applicant's invention.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ushijima et al. in view of Aaron et al.

Re claim 1, Ushijima et al. teach a powertrain mount (10) comprising an orifice plate (12) defining an orifice track having a first cross-sectional area and a slug (84).

However, Ushijima et al. do not teach a slug having a bore with a second cross-sectional area less than the first cross-sectional area. Aaron et al. teach a slug (46) having a bore (47, 48, 49) with a second cross-sectional area less than the first cross-sectional area. (Figure 4)It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the bore of Aaron et al. in the mount of Ushijima et al. in order to provide a dampened flow through the orifice track.

Page 5

Re claim 2, Ushijima et al. as modified teach at least one stop (44) disposed in the orifice track.

Re claim 3, Ushijima et al. as modified teach wherein the at least one stop (44) limits travel of the slug in the orifice track.

Re claim 4, Ushijima et al. as modified teach wherein the bore (47-49) has a constant cross-sectional area.

Re claim 5, Ushijima et al. teach a powertrain mount (10) comprising a base plate (14), a molded member (16) connected to the base plate, an orifice plate (12) connected to one of the base plate or the molded member, the orifice plate defining an orifice track having a first cross-sectional area and a slug (84) slidably disposed in the orifice track. However, Ushijima et al. do not teach wherein the slug has a bore with a second cross-sectional area less than the first cross-sectional area. Aaron et al. teach

a slug (46) having a bore (47, 48, 49) with a second cross-sectional area less than the first cross-sectional area. (Figure 4) It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the bore of Aaron et al. in the mount of Ushijima et al. in order to provide a dampened flow through the orifice track.

Re claim 6, Ushijima et al. as modified teaches at least one stop (44) disposed in the orifice track.

Re claim 7, Ushijima et al. as modified teaches wherein the at least one stop (44) limits travel of the slug (46) in the orifice track.

Re claim 8, Ushijima et al. as modified teaches wherein the bore (60) has a constant cross-sectional area.

Re claim 9, Ushijima et al. teaches a mount (10) for a powertrain component of a motor vehicle, the mount comprising a base plate (14), a molded member (16) connected to the base plate, an orifice plate (12) connected to one of the base plate or the molded member, the orifice plate defining an orifice track having a first cross-sectional area and a slug (84) slidably disposed in the orifice track. However, Ushijima et al. do not teach the slug having a bore (60) with a second cross-sectional area less than the first cross-sectional area. Aaron et al. teach a slug (46) having a bore (47, 48, 49) with a second cross-sectional area less than the first cross-sectional area. (Figure

Art Unit: 3683

4) It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the bore of Aaron et al. in the mount of Ushijima et al. in order to provide a dampened flow through the orifice track.

Re claim 10, Ushijima et al. as modified teaches at least one stop (44) disposed in the orifice track.

Re claim 11, Ushijima et al. as modified teaches wherein the at least one stop (44) limits travel of the slug in the orifice track.

Re claim 12, Ushijima et al. as modified teaches wherein the bore (47, 48, 49) has a constant cross-sectional area.

Re claim 13, Ushijima et al. as modified teaches wherein the powertrain component is an engine. (Column 1, lines 11-15)

Re claims 15, 17 and 19, Ushijima as modified teaches wherein the slug is a floating slug to the same extent as applicant's invention.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima in view of Chikamori et al.

Art Unit: 3683

Re claim 14, Kojima does not teach wherein the powertrain component is a transmission. Chikamori et al. teaches a mount (9) used for a transmission (5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a mount for use with a transmission in order to reduce vibration.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ushijima et al. in view of Aaron et al. and further in view of Chikamori.

Re claim 14, Ushijima as modified does not teach wherein the powertrain component is a transmission. Chikamori et al. teaches a mount (9) used for a transmission (5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a mount for use with a transmission in order to reduce vibration.

7. Claims 16, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima in view of Baldini et al. (US 5,273,262).

Kojima does not teach wherein the length of free travel of the slug is chosen such that its movement is not restricted during small amplitude input displacements to the mount. Baldini et al. teach wherein the length of free travel of a slug (48) is chosen such that its movement is not restricted during small amplitude input displacements to the mount. It would have been obvious to one of ordinary skill in the art to have chosen slug dimensions that would not restrict small amplitude input displacements to the mount in order to allow for damping during engine idling. (Column 3, 1st paragraph)

8. Claims 16, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ushijima et al. in view of Aaron et al. as applied above and further in view of Baldini et al. (US 5,273,262).

Ushijima et al. as modified does not teach wherein the length of free travel of the slug is chosen such that its movement is not restricted during small amplitude input displacements to the mount. Baldini et al. teach wherein the length of free travel of a slug (48) is chosen such that its movement is not restricted during small amplitude input displacements to the mount. It would have been obvious to one of ordinary skill in the art to have chosen slug dimensions that would not restrict small amplitude input displacements to the mount in order to allow for damping during engine idling. (Column 3, 1st paragraph)

Response to Arguments

9. Applicant's arguments filed June 27, 2005 have been fully considered but they are not persuasive.

Applicant argues that Kojima does not teach a slug slidably disposed in the orifice track. As described above and as shown clearly in Figure 3, the "slug" (48) of Kojima is slidably disposed in an orifice track (44). The "orifice track" of Kojima is an orifice track to the same extent as applicant's invention since it is defined in Applicant's specification as merely a passage which allows fluid flow from one passage to another. (Pg 4, 3rd paragraph) Element 44A was cited in error, but is considered a portion of the "orifice track" 44 nonetheless.

Application/Control Number: 09/997,745 Page 10

Art Unit: 3683

Regarding Applicant's arguments with respect to Ushijima et al. in view of Aaron et al. Applicant is arguing an embodiment not relied upon by the examiner. The examiner relies on <u>Figure 8</u> and element 84 (not 24) of Ushijima in the instant rejection. Therefore, applicant's arguments are most and the Examiner maintains that the combination is obvious as discussed above.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Application/Control Number: 09/997,745

Art Unit: 3683

11. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Melanie Torres whose telephone number is (571)272-

7127. The examiner can normally be reached on Monday-Friday, 6:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Charles Marmor can be reached on (571)272-7095. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

MT

September 14, 2005

Melaxie Sovres Melanie Torres Drimary Examiner

Page 11

9-14-05